

Name: _____ TP: _____

HW#23: Angle Pair Relationships

Geometry

Due Date: Tuesday October 13th

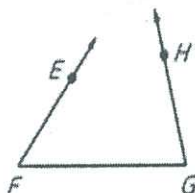
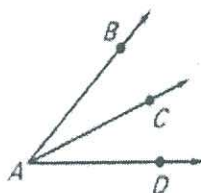
Failure to show all work and write in complete sentences will result in LaSalle!

- 1.) Tell whether the indicated angles are adjacent.

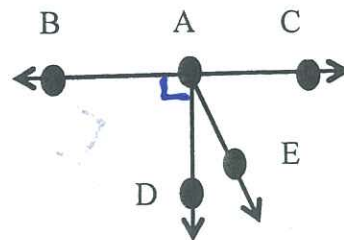
tell whether the indicated angles are adjacent.

a.) $\angle BAC$ and $\angle CAD$

b.) $\angle EFG$ and $\angle HGF$



- 5.) Name ~~8~~ ⁴ angles in this picture.



a.) $\angle BAD =$

b.) $\angle BAE =$

c.) $\angle DAE =$

d.) $\angle CAE =$

e.) _____

- 3.) $\angle 1$ and $\angle 2$ are complementary angles. Given $m\angle 1$, find $m\angle 2$.

$m\angle 1 + m\angle 2 = 90^\circ$

a.) $m\angle 1 = 52^\circ$

b.) $m\angle 1 = 76^\circ$

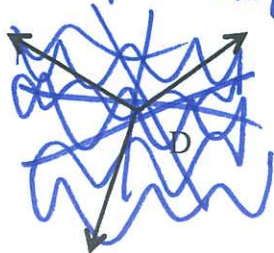
- 4.) $\angle 1$ and $\angle 2$ are supplementary angles. Given $m\angle 1$, find $m\angle 2$.

$m\angle 1 + m\angle 2 = 180^\circ$

a.) $m\angle 1 = 147^\circ$

b.) $m\angle 1 = 94^\circ$

- 7.) Why can't we name any of the angles in the picture?
What is the difference between complementary and supplementary?



- 6.) Classify each angle as obtuse, acute, right, or straight.

a.)

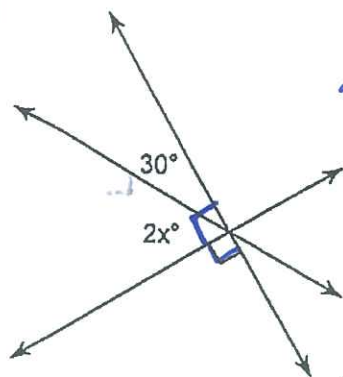


b.)



Find the value of x and indicate which angle relationship you used.

1)

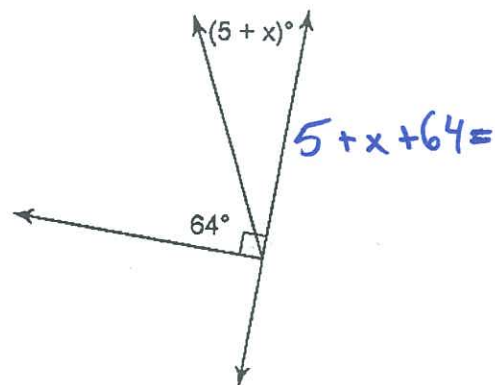


$$30 + 2x = 90 \text{ comp angles}$$

OR

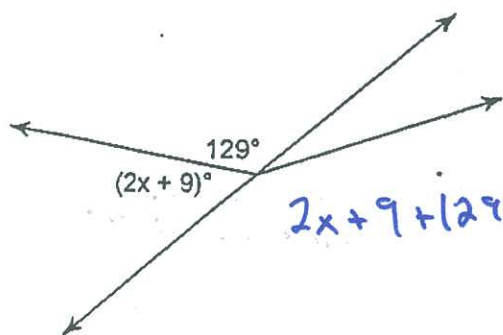
$$30 + 2x + 90 = 180 \text{ sup angles}$$

2)



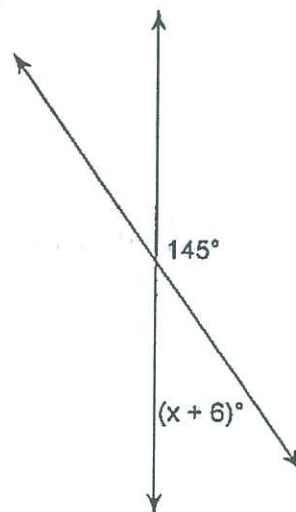
$$5 + x + 64 =$$

3)

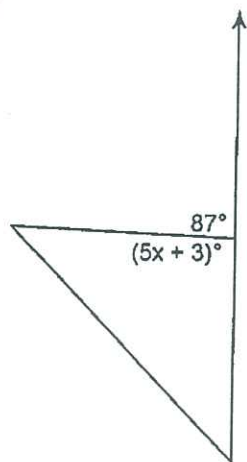


$$2x + 9 + 129 =$$

4)



5)



$$87 + 5x + 30 =$$

6)

vertical angles are ...

